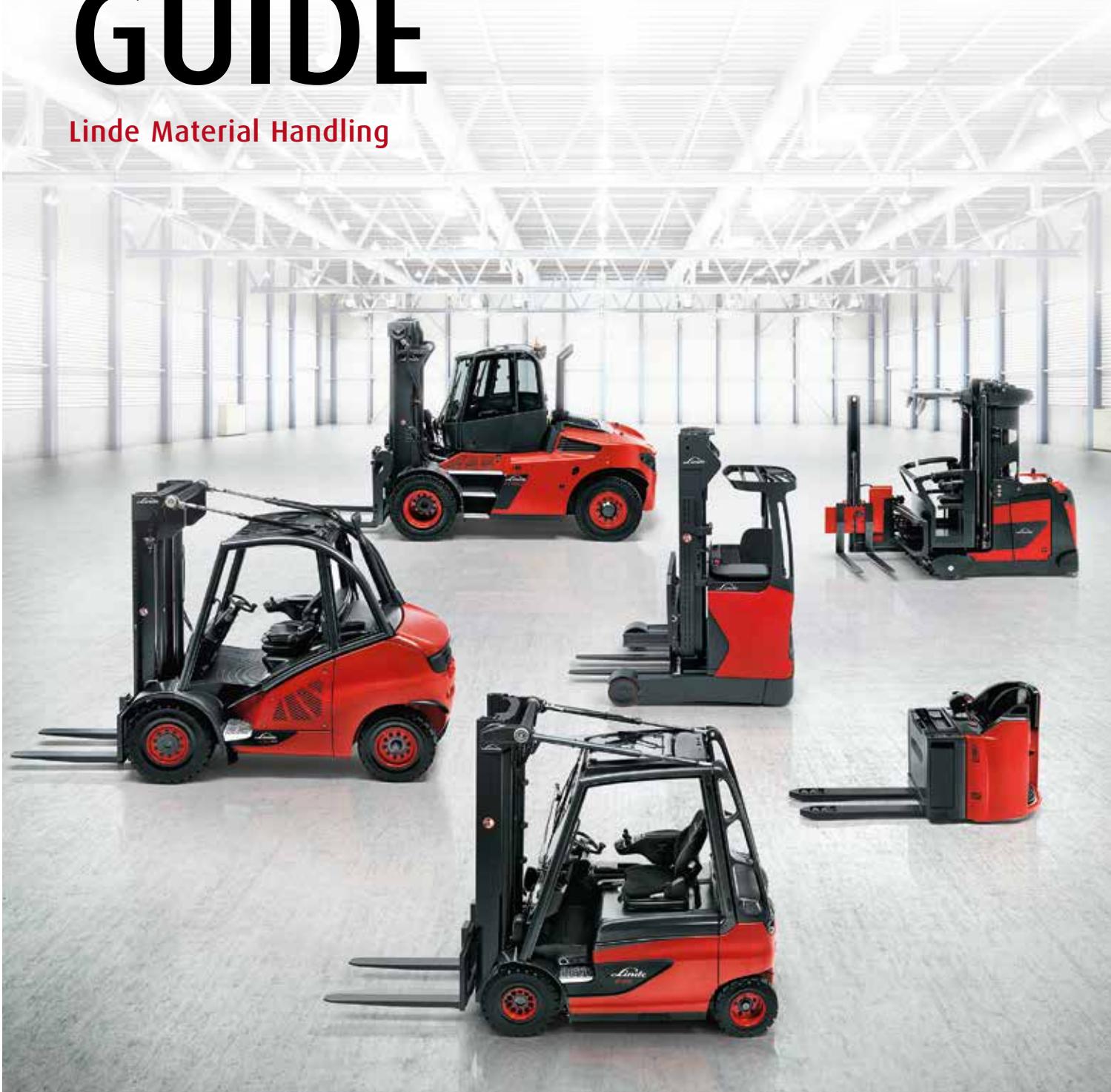




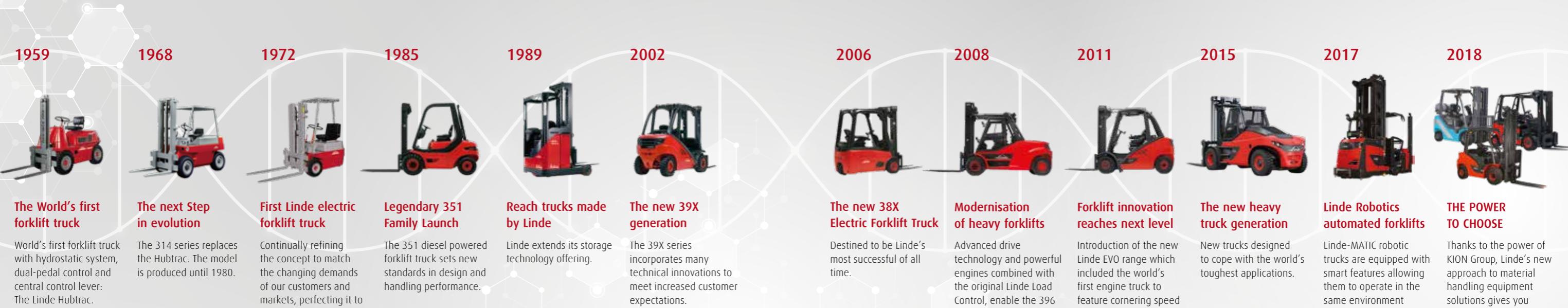
# SOLUTIONS GUIDE

Linde Material Handling



# SHAPING THE FUTURE OF MHE THROUGH SAFETY AND INNOVATION

## THE DNA OF INDUSTRY LEADERSHIP



### CONTINUOUS IMPROVEMENT OUR GUIDING THOUGHT

130 YEARS OF ASKING:

"How can we make it better?"



#### CARL VON LINDE

The simple yet powerful question of "How can we make it better?" guides the development of every product we manufacture. First appearing in Carl von Linde's book of engineering principles, it remains at the very heart of everything we do. Technology, efficiency and continuous innovation have characterised our company from the very beginning. They always will.

#### A HISTORY OF NEW FORKLIFT INNOVATION

The roots of Linde Material Handling date back to the beginning of the 20th century. Together with Hugo Guldner and Georg von Krauss, Carl von Linde founds the Guldner-Motoren-Gesellschaft in Munich in 1904. The Gesellschaft für Linde's Eismaschinen AG, founded by Carl von Linde in 1879, took over the Guldner-Motoren-Gesellschaft.

In 1955 the development of the first vehicle with a hydrostatic drive and the first truck with this drive concept in 1960 laid the foundation for Linde's rise to one of the world's largest manufacturers of forklift trucks and warehouse equipment.

#### DYNAMIC MAST CONTROL

The latest operator-assist system for reach trucks, automatically ensures smooth, simultaneous lift and reach movements for optimum productivity at all lift heights.



#### TECHNICAL BREAKTHROUGHS IN FORKLIFT SAFETY

You won't find a material handling company more committed to safety than Linde. It's built into our engineering DNA, from outstanding operator sight lines, to industry leading ergonomics and the inherent no roll-away safety of hydrostatic drive.

#### SAFETY ADVANCEMENT AT THE HEART OF ALL WE DO



#### BLUESPOT SAFETY SYSTEM

There's no better solution for pedestrian and vehicle workplace safety than the Linde BlueSpot optical driving path warning system. BlueSpot can be fitted to narrow aisle trucks and reach trucks as well as counterbalance forklifts.

#### LEADERSHIP

Innovation has been part of Linde's DNA for more than a century. That's why every Linde is designed for efficiency and engineered to perform like no other forklift on the market. Through over 59 years of forklift design leadership, we've delivered unparalleled performance, durability and total cost of ownership.

#### LINDE ROBOTICS

Linde's robotics solution, amongst the most advanced available today, provides for the first time incredible competitiveness gains and unique flexibility for your operations.

#### LITHIUM ION

Li-ION batteries from Linde for forklift trucks and warehouse equipment improve operation and handling. They increase the availability of vehicles and make operation more economical, safer and at the same time more sustainable.





## MATERIAL HANDLING & EQUIPMENT

# SOLUTIONS

### YOUR ONE-STOP SOLUTION SHOP

When it comes to solutions, the best one we can offer you is also the easiest and most practical. That's because Linde truly is a one-stop shop for all your material handling equipment requirements. We don't simply have the forklifts and warehouse equipment your business needs. We also have the support services to ensure you get the most from your material handling equipment investment – whether for a very large business or a very small one. Whether you need new or used forklifts, service, parts, fleet management services or specialist and expert assistance with warehouse design and configuration – we can help.

Want to minimise the operating cost and boost the productivity of any electric forklift or electric warehouse equipment? We can also help. Linde can meet all your material handling equipment rental, purchase or commercial hire purchase needs from a range that is acknowledged for its outstanding productivity, efficiency and durability. We tailor new equipment solutions for Australia's largest forklift and warehouse equipment users as well as for businesses which require just a single forklift or hand pallet truck.

### SOLUTIONS FOR EVERY BUSINESS

Whatever the size of your business or your material handling equipment challenge, there's one brand that offers more solutions for more customers – Linde. Linde equipment has always enjoyed a reputation for quality and performance second to none, but that's not the key reason why some of Australia's largest forklift and warehouse equipment users have switched to Linde. And it's not why increasing numbers of smaller businesses have also joined the trend. It's because at Linde we've transformed ourselves into solution providers, looking beyond the abilities of our wide equipment range to provide intelligent methods of meeting your requirements. We offer the best equipment from pallet jacks to 18 tonne engine forklifts and specialised warehouse equipment, but it's their support options which truly make a difference. The solutions we've developed around parts and service, short term rentals, fleet management systems, Linde Certified Pre-owned, Linde Power Solutions and World Class Warehousing have been game changers for many businesses big and small. Whatever your requirement there's a Linde solution designed to make sense for your business.

### LINDE RENTAL SOLUTIONS

Whether you need a single machine or a whole fleet, for a couple of hours or as long as five years, Linde's the obvious solution for forklift rental. We've got equipment reserved and maintained for rental customers, with everything from hand pallet trucks, powered pallet trucks and stackers through to 18 tonne forklifts and specialised very narrow aisle equipment.

Our rental equipment is selected, prepared and maintained for the huge short-term forklift rental fleet available from Linde's national branch and dealer network.

- ✓ Equipment when you need it
- ✓ Hire from 1 day to permanent
- ✓ Get the latest Linde technology
- ✓ Hire a single machine or a whole fleet

### CERTIFIED PRE-OWNED SOLUTIONS

Linde's factory-backed Certified Pre-owned equipment program is the ideal solution when you need quality, reliable equipment, but there isn't a business case for a new forklift. A Linde Certified Pre-owned forklift takes the risk out of your used forklift purchasing and lets you buy a fully tested, refurbished and warranted truck that's competitively priced and backed by our nationwide network for parts supply, advice and forklift servicing. You'll get a pre-owned forklift manufactured by a company famous for its engineering triumphs and its commitment to forklift quality, reliability and safety.

- ✓ Nationwide support network
- ✓ Choose from our huge range
- ✓ Take the risk out of buying used
- ✓ Factory-backed quality & reliability

Whatever system you select, we believe you'll have never experienced a more robust or straightforward method of equipment access control and compliance reporting.

### LINDE FLEETFOCUS

Linde FleetFOCUS puts you in total command of your material handling equipment resources. Review workplace health and safety compliance, cost efficiency and accountability via a web-based interface and engage with Linde as a strategic partner to assess important data to simplify and streamline your decision making. Access important fleet information on your PC, laptop, tablet or smart phone and receive real-time status reports on your material handling equipment and its operators' performance.

- ✓ WHS compliance made easy
- ✓ Significant fleet cost reductions
- ✓ Real-time 24/7 vehicle reporting
- ✓ Total fleet control and consultation



# THE FUTURE IS NOW

## LINDE ROBOTICS

Linde robotics technology offers flexible and scalable automation solutions and can be tailored to specific requirements – even for smaller companies. It offers a complete logistics solution interfaced with customers' own logistics management software, ensuring real-time supervision, without the need to install any fixed infrastructure. If needed, an operator can take manual control of the robotic truck to perform ordinary manual tasks.

- ✓ Maximum traffic safety
- ✓ Ultimate versatility
- ✓ Incremental networking options
- ✓ Scalable warehouse automation



The new generation of Linde robotic trucks can perform repetitive, low added-value material handling tasks reliably and independently. Called "cobotics" - the collaboration between people and robots allows both to work and interact together safely. Linde autonomous trucks can integrate seamlessly with IT processes to maximise efficiency. They are also designed to function alongside people working in complex production and logistics environments.

- ✓ Minor installation cost
- ✓ Reduced operating cost
- ✓ Fully automated or manual control
- ✓ Increased equipment efficiency



## LITHIUM-ION

For some time now, there has been increasing demand for electric forklifts instead of IC engine-powered trucks. The challenge: to ensure the same high vehicle availability as with trucks powered by internal combustion engines. This is where lithium-ion technology comes into play. It has proven its worth in everyday use and offers a whole series of advantages over lead-acid batteries in forklifts.

Linde offers advanced counterbalance forklifts, reach trucks, order pickers and power pallet trucks in Lithium-ion powered configurations. They deliver high utilisation rates over multiple shifts without the

- ✓ Expert Energy Consultants
- ✓ Extra long battery lifespan
- ✓ High speed / opportunity charging
- ✓ No charging room infrastructure

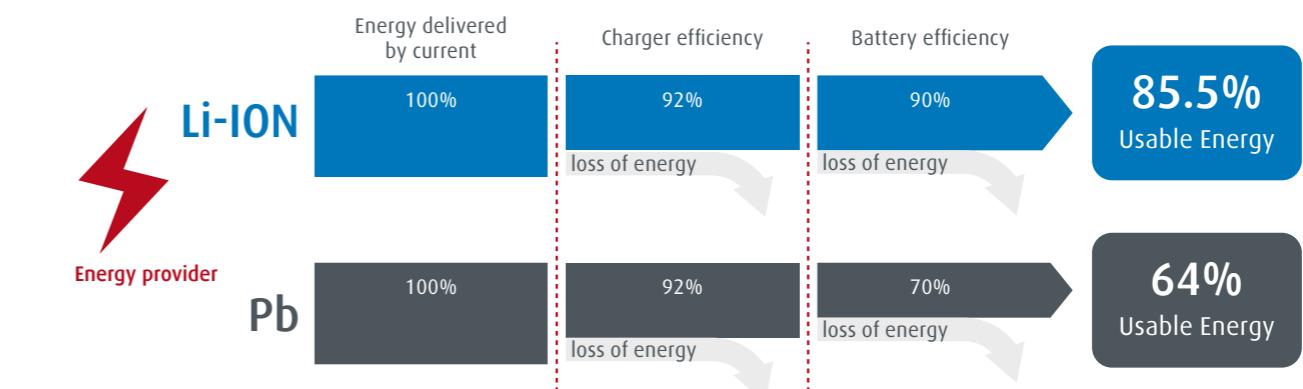
need for battery changes and with no loss of performance even as the battery charge level drops.

Linde's Li-ION technology also offers the highest level of driver and vehicle safety. Linde engineers have developed a comprehensive safety concept for the entire system consisting of battery and vehicle.

Linde's state-of-the-art energy systems are not only highly efficient, they also protect both people and the environment. Linde's Li-ION batteries meet all sustainability requirements. For example, their operation is completely emission-free.

- ✓ Emission-free
- ✓ Excellent energy efficiency
- ✓ Tailored power solutions
- ✓ Maintenance-free

## Comparing the net usable energy for Li-ION versus lead-acid batteries.





SOLUTIONS FOR  
**SAFETY**

You won't find a material handling company more committed to safety than Linde. It's built into our engineering DNA, from outstanding operator sight lines, to industry leading ergonomics and the inherent no roll-away safety of hydrostatic drive. Linde safety solutions have been developed to ensure they address the specific safety requirements of individual businesses. This includes potential risks to the operator(s) and personnel working in the surrounding environment; as well as damage to the handling equipment, the loads being handled and the warehouse structures.



**NEW PERSPECTIVES**

Linde design minimises obstructions to the operator's view, helping to avoid damage to racking, trucks and goods while reducing work stress and maximising productivity and equipment life. Available solutions include an overhead guard with panoramic, armoured glass roof, overhead tilt cylinders, slimmer mast profiles, CCTV Monitors, a panoramic interior mirror and a reversing camera.

- ✓ Optimised operator vision
- ✓ A safer working environment



**REVERSE PROXIMITY ALARM**

Linde's acoustic and visual operator warning system covers rear and sideways areas near the truck to vastly reduce accident potential in confined or obscured warehouse areas. An automatic speed reduction when obstacles are detected gives the operator additional assistance and zones and speed reduction settings are individually adjustable. The risk of collisions, injuries and collateral damage is also reduced.

- ✓ Minimise posture-related injuries
- ✓ Reduce accidents and damage



**BLUESPOT SYSTEM**

There's no better solution for pedestrian and vehicle workplace safety than the Linde BlueSpot optical driving path warning system. BlueSpot can be fitted to narrow aisle trucks and reach trucks as well as counterbalance forklifts. No additional infrastructure is required, so the need to install sensors, dedicated cabling or lights and the complications of retro-fitting in existing facilities are all avoided.

- ✓ Highly visible early warning system
- ✓ No additional infrastructure required



## DYNAMIC MAST CONTROL

Linde Dynamic Mast Control, the latest operator-assist system for reach trucks, automatically ensures smooth, simultaneous lift and reach movements for optimum productivity at all lift heights. It automatically compensates and minimises mast oscillations and mast deflections through precise and seamless counter-movements of the reach carriage – yet another way that Linde innovation puts you in front.

- ✓ Improves lift & reach movements
- ✓ Minimises oscillations & deflections



## LOAD MANAGEMENT

The Linde Load Management system automatically calculates the truck's residual capacity based on the height and weight on the forks and displays these values for the operator. Safety-critical situations are identified with visual and audible warnings while speed and acceleration is reduced automatically in relation to steering angle and residual capacity.

- ✓ Avoid overloading of forklifts
- ✓ Protect operators and equipment



## OPERATOR PROTECTION SYSTEMS

Linde forklifts are equipped with a multi-layered system of operator protection for safe and efficient use. Systems designed to greatly reduce the risk of operator injury, accidents and unplanned downtime include a shoulder protection hoop guard, safety doors, automatic activated parking brake and a redundant truck control unit for all safety related commands.

- ✓ Reduce operator injury risk
- ✓ Minimises oscillations & deflections



## SAFETY AND EFFICIENCY

Poor posture and strain caused by twisting the spine when reversing is minimised in Linde forklifts by provision of features including an operator's workstation which can rotate up to 90° for ergonomic operation with excellent visibility. The operator's seat also has 17 degrees of swivel to ensure the optimum ergonomic working posture and visibility is achieved.

- ✓ Avoid postural issues while reversing
- ✓ Maintain work-shift efficiency



## SAFETY PILOT

Greater protection against operating errors is just one of the advantages of the innovative Linde Safety Pilot system, which also enables much safer and productive truck operation. A rotary push-button mounted in the armrest underneath the operating lever allows lift height preselection, lifting and lowering limits and precise control of the lift height at the touch of a button.

- ✓ Helps minimise operating errors
- ✓ Increases safety & productivity



## AUTOMATIC TRAVEL SPEED CONTROL

Linde offers smart solutions to control truck speed when it presents a potential risk such as when entering congested warehouse areas, or when inappropriate cornering speed could cause loads to be shed or the truck to tip over. Automatic speed limitation gives adjustable indoor and outdoor limit options and Curve Assist provides automatic, proportional speed adjustment when cornering.

- ✓ Increase safety in high risk areas
- ✓ Speed adjustment when cornering



## OPERATIONAL VIBRATIONS

Linde forklifts incorporate a suspended operator's compartment as standard to isolate shocks and vibrations caused by uneven roadways. Adjustable, ergonomic control elements and a fully adjustable seat which automatically adjusts to the operator's weight provide optimum support for different physiques. These features provide optimal ergonomics and minimise stress.

- ✓ Minimise operator health impacts
- ✓ Optimise productivity and efficiency



## OPERATOR TRAINING

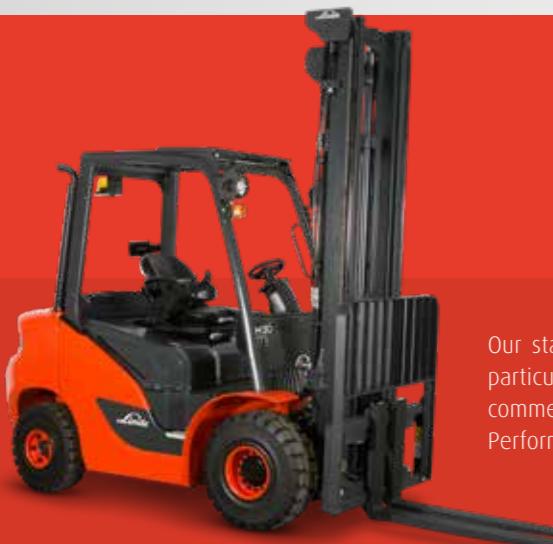
Improve on the productivity, fuel efficiency and inherent safety of Linde forklifts by having your operators take advantage of forklift training provided by the best in the business. If your workplace needs material handling equipment users with a focus on productivity as well as safety, speak to a Linde specialist today. Let us show you how your business can benefit.

- ✓ Increase warehouse safety
- ✓ Boost operator productivity



## CHOOSE VALUE

Understanding the difference between price and value is especially important when it comes to material handling equipment. Linde's Value range is ideal for lower demand applications. It consists of quality equipment suited for those situations where material handling equipment is not at the heart of your activities but is essential and must be reliable.



## CHOOSE PERFORMANCE

Our staff are experts in liaising with customers to fully understand their equipment needs, particularly to identify those medium demand applications where competing operational and commercial demands can make it all too easy to choose the wrong forklift. That's where Linde's Performance range is more than just a good solution, it's the best.



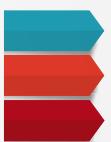
## CHOOSE PERFORMANCE *PLUS*

Linde equipment has a hard-won reputation for unrivalled performance in high-demand applications where other equipment cannot perform as required and doesn't last the distance. Our Performance Plus range brings together the best of the best, presenting you with choices and models which will satisfy even the most demanding requirements hour after hour, day after day and year after year.

## THE POWER TO CHOOSE

VALUE, PERFORMANCE,  
PERFORMANCE PLUS.

WHEN IT COMES TO MATERIAL HANDLING REQUIREMENTS, ONE SIZE SIMPLY DOESN'T FIT ALL. THAT'S WHY LINDE GIVES YOU THE POWER OF CHOICE. WHETHER YOUR BUSINESS REQUIRES EQUIPMENT FOR LOW, MEDIUM OR HIGH DEMAND APPLICATIONS, OR EVEN A MIX OF ALL THREE, YOU NOW HAVE THE POWER TO CHOOSE THE PERFECT SOLUTION.



# ENGINE FORKLIFTS

## SOLUTIONS FOR STACKING

Linde LPG and diesel counter-balanced forklifts use high-torque, low-revving engines with low emissions and minimised noise levels. With lifting capacities from 1.4 to 18 tonnes there's a Linde forklift just right for your application.

Linde engine forklifts combine outstanding engineering and ergonomics in a design which lets operators perform productively shift after shift.

 Weight  
 Forklift Series  
 Fuel Type

### H16-H20

 1.6 to 2.0 tonne  
 Series 1216  
 LPG / Diesel



PERFORMANCE

### H25-H35

 2.5 to 3.5 tonne  
 Series 1219  
 LPG / Diesel



PERFORMANCE

### H25-H35

 2.5 to 3.5 tonne  
 Series 1220  
 LPG / Diesel



PERFORMANCE

### H14-H20

 1.4 to 2.0 tonne  
 Series 391  
 LPG / Diesel



PERFORMANCE *PLUS*

### H20-H25

 2.0 to 2.5 tonne  
 Series 392  
 LPG / Diesel



PERFORMANCE *PLUS*

### H25-H35

 2.5 to 3.5 tonne  
 Series 393  
 LPG / Diesel



PERFORMANCE *PLUS*

### H100-H180

 10.0 to 18.0 tonne  
 Series 1411  
 Diesel



PERFORMANCE

### KBD/KBG 18-20

 1.8 to 2.0 tonne  
 LPG / Diesel



VALUE

### KBD/KBG 25-35

 2.5 to 3.5 tonne  
 LPG / Diesel



VALUE

### H40-H50

 4.0 to 5.0 tonne  
 Series 394  
 LPG / Diesel



PERFORMANCE *PLUS*

### H50-H80

 5.0 to 8.0 tonne  
 Series 396  
 LPG / Diesel



PERFORMANCE *PLUS*

### H100-H180

 10.0 - 18.0 tonne  
 Series 1401  
 Diesel



PERFORMANCE *PLUS*

### KBD/KBG 40-50

 4.0 to 5.0 tonne  
 LPG / Diesel



VALUE

### KBD 70

 7.0 tonne  
 Diesel



VALUE

### KBD 80-100

 8.0 to 10.0 tonne  
 Diesel



VALUE

# ELECTRIC FORKLIFTS

## SOLUTIONS FOR STACKING

Linde's electric counter-balanced forklift range is built on advanced technology which provides optimal use of energy through high-efficiency driving and lifting performance. With lift heights up to 8000mm and lift capacities from 1.0 tonne to 8.0 tonnes there's a Linde electric counter-balanced forklift ready to lift your stacking productivity with shorter cycle times and reduced operator fatigue.



### E12-E20

1.2 to 2.0 tonne  
 Series 386  
 Electric



PERFORMANCE *PLUS*

### E20-E35

2.0 to 3.5 tonne  
 Series 387  
 Electric



PERFORMANCE *PLUS*

### E35-E50

3.5 to 5.0 tonne  
 Series 388  
 Electric



PERFORMANCE *PLUS*

### E60-E80

6.0 to 8.0 tonne  
 Series 1279  
 Electric



PERFORMANCE *PLUS*

### E16-E20

1.6 to 2.0 tonne  
 Series 1275  
 Electric



PERFORMANCE

### E25-E35

2.5 to 3.5 tonne  
 Series 1276  
 Electric



PERFORMANCE

# REACH TRUCKS

## SOLUTIONS FOR STORAGE

Linde's latest reach trucks not only have outstanding user friendly features and benefits, but are also exceptionally robust and superbly versatile. They continue to set the benchmark for outstanding ergonomics, safety and high productivity delivered with excellent cost-efficiency.



### R14X-R17X

1.4 to 1.7 tonne  
 Series 116  
 Electric



PERFORMANCE *PLUS*

### R14G-R20G

1.4 to 2.0 tonne  
 Series 1120  
 Electric



PERFORMANCE *PLUS*

### R14-R25

1.4 to 2.5 tonne  
 Series 1120  
 Electric



PERFORMANCE *PLUS*

### R20F-R25F

2.0 to 2.5 tonne  
 Series 8923  
 Electric



PERFORMANCE *PLUS*

### R14S-R20S

1.4 to 2.0 tonne  
 Series 115  
 Electric



PERFORMANCE

# TURRET TRUCKS

## SOLUTIONS FOR STORAGE

With its global experience Linde can work with you to select the most appropriate man-down or man-up turret truck solution for your very narrow aisle needs and can even help optimise the design of your facility.

**5022 Man-down**

1.5 tonne  
 A Series  
 Electric



PERFORMANCE *PLUS*

**5231 Man-up**

1.5 tonne  
 K Series  
 Electric



PERFORMANCE *PLUS*



# ORDER PICKERS

## SOLUTIONS FOR ORDER PICKING

Linde equipment excels in all warehouse processes, but when it comes to order picking you'll find our equipment's ability to help employees process customer orders quickly and accurately is unmatched.



**V08**

0.8 tonne  
 Series 1110  
 Electric



PERFORMANCE *PLUS*

**V**

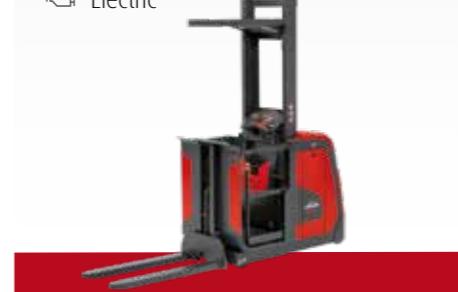
1.2 tonne  
 Series 5213  
 Electric



PERFORMANCE *PLUS*

**V10**

1.0 tonne  
 Series 5021  
 Electric



PERFORMANCE *PLUS*

**N20Vi/VLi**

2.0 tonne  
 Series 1111  
 Electric



PERFORMANCE *PLUS*

**N20-N24HP**

2.0 to 2.4 tonne  
 Series 132/1159  
 Electric



PERFORMANCE

# STACKERS

## SOLUTIONS FOR STORAGE AND TRANSPORTING

Linde offers electric walkie stackers (walk-behind electric pallet stackers) in a variety of different models and types. These mast-equipped pallet trucks are hugely versatile and can be configured with lifting heights of up to 6 metres.



### L14-L16

 1.4 to 1.6 tonne

 Series 131

 Electric



PERFORMANCE

### L10-L12

 1.0 to 1.2 tonne

 Series 1172

 Electric



PERFORMANCE

### ER15-101

 1.5 tonne

 Baoli

 Electric



VALUE

### ES12-104

 1.2 tonne

 Baoli

 Electric



VALUE

# PALLET TRUCKS

## SOLUTIONS FOR STORAGE AND TRANSPORTING

Maintenance-free AC traction technology and electric power steering ensure seamless precision performance from Linde pallet trucks which are all equipped with a workstation which provides the perfect interface between operator and truck.



### T16-T20

 1.6 to 2.0 tonne

 Series 1151/1152

 Electric



PERFORMANCE

### T20-T25

 2.0 to 2.5 tonne

 Series 131/ 1158

 Electric



PERFORMANCE

### MT12

 1.2 tonne

 Series 1131

 Electric



VALUE

### MT15

 1.5 tonne

 Series 1133

 Electric



VALUE

### M25

 2.5 tonne

 Series 032

 Manually operated



VALUE

# TOW TRACTORS

## SOLUTIONS FOR TRANSPORTING

The Linde tow tractor range offers the choice you need to select a vehicle well matched to your requirements for specialised roles and on large sites. Heavy duty chassis structures, high torque AC motors and travel speeds up to 25 km/h are just some of the features which underscore the performance and durability of these popular Linde vehicles.



P30

3.0 tonne  
 Series 132  
 Electric



PERFORMANCE

W04

400kg  
 Series 1193  
 Electric



PERFORMANCE

P20

2.0 tonne  
 Series 1193  
 Electric



PERFORMANCE

W08

800kg  
 Series 1191  
 Electric



PERFORMANCE

P250

25.0 tonne  
 Series 127  
 Electric



PERFORMANCE

P60-P80

6.0 to 8.0 tonne  
 Series 1191  
 Electric



PERFORMANCE

# EVERYTHING YOU NEED. ANY WAY YOU WANT IT.



Linde Material Handling



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